



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

SPECfp®\_rate2006 = 66.7

ProLiant DL360 G5  
(3.0 GHz, Intel Xeon processor X5365)

SPECfp\_rate\_base2006 = 62.9

CPU2006 license: 3

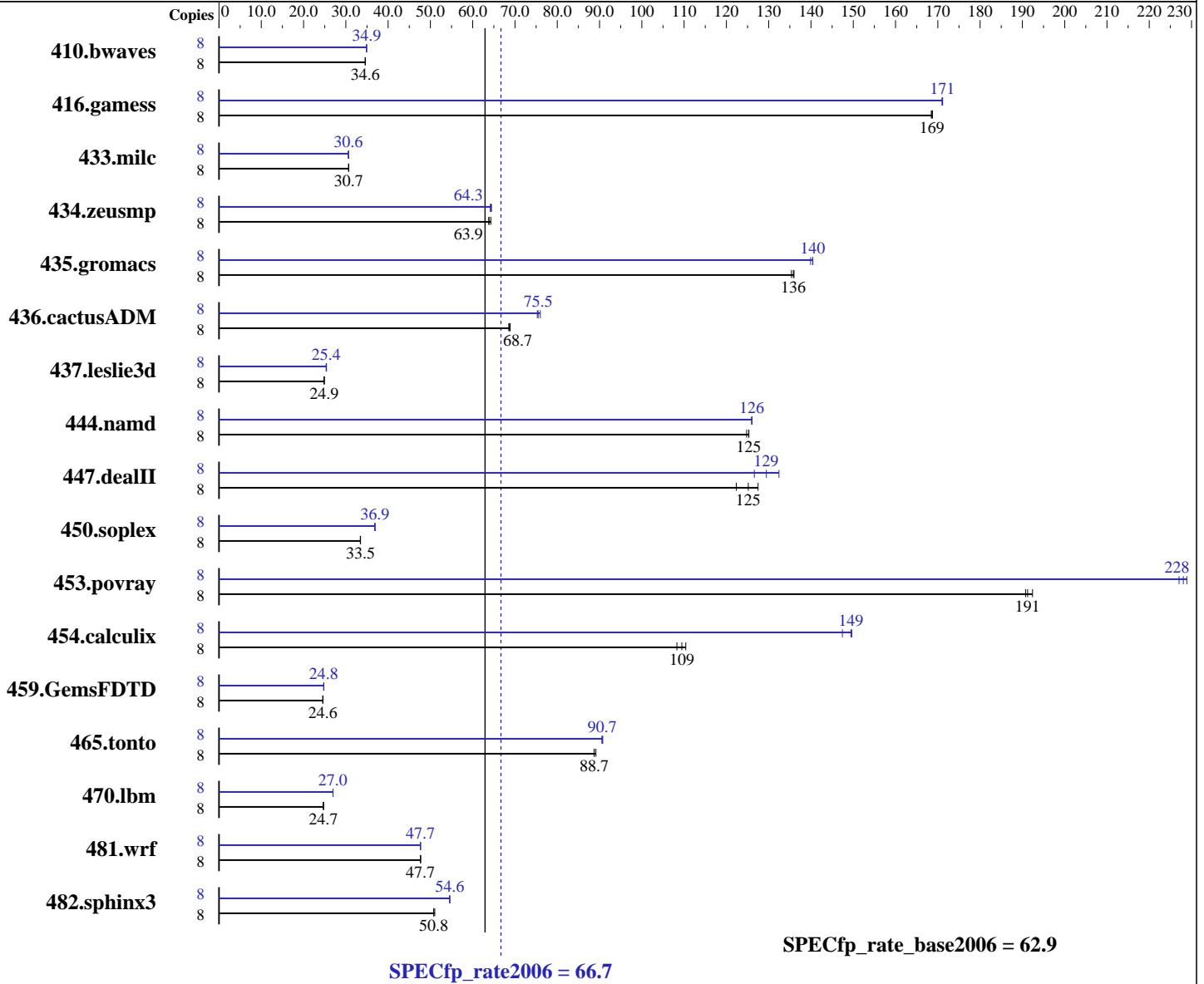
Test date: Aug-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Sep-2007

Tested by: Hewlett-Packard Company

Software Availability: Nov-2007



### Hardware

CPU Name: Intel Xeon X5365  
 CPU Characteristics: 3.0 GHz, 2x4 MB L2 shared, 1333 MHz system bus  
 CPU MHz: 3000  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip  
 CPU(s) orderable: 1,2 chips  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 8 MB I+D on chip per chip, 4 MB shared / 2 cores

Continued on next page

### Software

Operating System: SuSE Linux Enterprise Server 10 (x86\_64) SP1  
 kernel 2.6.16.46-0.12-smp  
 Compiler: Intel C++ and Fortran Compiler for Linux32 and Linux64 version 10.1  
 Build 20070725  
 Auto Parallel: No  
 File System: ext2  
 System State: Multi-user run level 3  
 Base Pointers: 64-bit

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

SPECfp\_rate2006 = 66.7

ProLiant DL360 G5  
(3.0 GHz, Intel Xeon processor X5365)

SPECfp\_rate\_base2006 = 62.9

CPU2006 license: 3  
Test sponsor: Hewlett-Packard Company  
Tested by: Hewlett-Packard Company

Test date: Aug-2007  
Hardware Availability: Sep-2007  
Software Availability: Nov-2007

L3 Cache: None  
Other Cache: None  
Memory: 16 GB (8x2 GB PC2-5300F CL5)  
Disk Subsystem: 1x72 GB 15 K SAS  
Other Hardware: None

Peak Pointers: 32/64-bit  
Other Software: binutils-2.17.50

## Results Table

| Benchmark     | Base   |             |             |             |             |             |             | Peak   |             |             |             |             |             |             |
|---------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|
|               | Copies | Seconds     | Ratio       | Seconds     | Ratio       | Seconds     | Ratio       | Copies | Seconds     | Ratio       | Seconds     | Ratio       | Seconds     | Ratio       |
| 410.bwaves    | 8      | 3144        | 34.6        | 3139        | 34.6        | <b>3143</b> | <b>34.6</b> | 8      | 3116        | 34.9        | 3115        | 34.9        | <b>3115</b> | <b>34.9</b> |
| 416.gamess    | 8      | 930         | 168         | <b>929</b>  | <b>169</b>  | 928         | 169         | 8      | <b>915</b>  | <b>171</b>  | 916         | 171         | 915         | 171         |
| 433.milc      | 8      | <b>2394</b> | <b>30.7</b> | 2392        | 30.7        | 2398        | 30.6        | 8      | 2399        | 30.6        | 2400        | 30.6        | <b>2399</b> | <b>30.6</b> |
| 434.zeusmp    | 8      | 1132        | 64.3        | <b>1140</b> | <b>63.9</b> | 1141        | 63.8        | 8      | 1130        | 64.4        | <b>1132</b> | <b>64.3</b> | 1135        | 64.2        |
| 435.gromacs   | 8      | 422         | 135         | <b>421</b>  | <b>136</b>  | 420         | 136         | 8      | 407         | 140         | <b>407</b>  | <b>140</b>  | 408         | 140         |
| 436.cactusADM | 8      | 1388        | 68.9        | 1395        | 68.5        | <b>1391</b> | <b>68.7</b> | 8      | 1258        | 76.0        | <b>1267</b> | <b>75.5</b> | 1270        | 75.3        |
| 437.leslie3d  | 8      | 3020        | 24.9        | 3025        | 24.9        | <b>3024</b> | <b>24.9</b> | 8      | 2967        | 25.3        | <b>2964</b> | <b>25.4</b> | 2957        | 25.4        |
| 444.namd      | 8      | 512         | 125         | <b>512</b>  | <b>125</b>  | 514         | 125         | 8      | 509         | 126         | 509         | 126         | <b>509</b>  | <b>126</b>  |
| 447.dealII    | 8      | 748         | 122         | <b>731</b>  | <b>125</b>  | 718         | 127         | 8      | 691         | 132         | 723         | 127         | <b>707</b>  | <b>129</b>  |
| 450.soplex    | 8      | 1993        | 33.5        | 1997        | 33.4        | <b>1994</b> | <b>33.5</b> | 8      | 1807        | 36.9        | <b>1809</b> | <b>36.9</b> | 1810        | 36.9        |
| 453.povray    | 8      | 223         | 191         | 221         | 192         | <b>223</b>  | <b>191</b>  | 8      | <b>187</b>  | <b>228</b>  | 187         | 227         | 186         | 229         |
| 454.calculix  | 8      | 598         | 110         | <b>603</b>  | <b>109</b>  | 609         | 108         | 8      | 448         | 147         | 441         | 150         | <b>442</b>  | <b>149</b>  |
| 459.GemsFDTD  | 8      | <b>3455</b> | <b>24.6</b> | 3452        | 24.6        | 3457        | 24.6        | 8      | <b>3426</b> | <b>24.8</b> | 3425        | 24.8        | 3427        | 24.8        |
| 465.tonto     | 8      | 887         | 88.7        | <b>887</b>  | <b>88.7</b> | 883         | 89.1        | 8      | <b>868</b>  | <b>90.7</b> | 869         | 90.6        | 867         | 90.8        |
| 470.lbm       | 8      | <b>4452</b> | <b>24.7</b> | 4452        | 24.7        | 4453        | 24.7        | 8      | 4077        | 27.0        | <b>4077</b> | <b>27.0</b> | 4077        | 27.0        |
| 481.wrf       | 8      | <b>1875</b> | <b>47.7</b> | 1874        | 47.7        | 1875        | 47.7        | 8      | <b>1875</b> | <b>47.7</b> | 1876        | 47.6        | 1875        | 47.7        |
| 482.sphinx3   | 8      | 3072        | 50.8        | 3055        | 51.0        | <b>3071</b> | <b>50.8</b> | 8      | 2857        | 54.6        | 2859        | 54.5        | <b>2858</b> | <b>54.6</b> |

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

## Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run  
'/usr/bin/taskset' used to bind processes to CPUs

## Platform Notes

BIOS configuration:  
Power Regulator set to Static High Performance Mode  
Adjacent Sector Prefetch Disabled  
Hardware Prefetcher Disabled



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Hewlett-Packard Company**

**SPECfp\_rate2006 = 66.7**

ProLiant DL360 G5  
(3.0 GHz, Intel Xeon processor X5365)

**SPECfp\_rate\_base2006 = 62.9**

**CPU2006 license:** 3

**Test date:** Aug-2007

**Test sponsor:** Hewlett-Packard Company

**Hardware Availability:** Sep-2007

**Tested by:** Hewlett-Packard Company

**Software Availability:** Nov-2007

## Base Compiler Invocation

C benchmarks:  
icc

C++ benchmarks:  
icpc

Fortran benchmarks:  
ifort

Benchmarks using both Fortran and C:  
icc ifort

## Base Portability Flags

410.bwaves: -DSPEC\_CPU\_LP64  
416.gamess: -DSPEC\_CPU\_LP64  
433.milc: -DSPEC\_CPU\_LP64  
434.zeusmp: -DSPEC\_CPU\_LP64  
435.gromacs: -DSPEC\_CPU\_LP64 -nofor\_main  
436.cactusADM: -DSPEC\_CPU\_LP64 -nofor\_main  
437.leslie3d: -DSPEC\_CPU\_LP64  
444.namd: -DSPEC\_CPU\_LP64  
447.dealII: -DSPEC\_CPU\_LP64  
450.soplex: -DSPEC\_CPU\_LP64  
453.povray: -DSPEC\_CPU\_LP64  
454.calculix: -DSPEC\_CPU\_LP64 -nofor\_main  
459.GemsFDTD: -DSPEC\_CPU\_LP64  
465.tonto: -DSPEC\_CPU\_LP64  
470.lbm: -DSPEC\_CPU\_LP64  
481.wrf: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_CASE\_FLAG -DSPEC\_CPU\_LINUX  
482.sphinx3: -DSPEC\_CPU\_LP64

## Base Optimization Flags

C benchmarks:  
-fast

C++ benchmarks:  
-fast

Fortran benchmarks:  
-fast

Benchmarks using both Fortran and C:  
-fast



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

**SPECfp\_rate2006 = 66.7**

ProLiant DL360 G5  
(3.0 GHz, Intel Xeon processor X5365)

**SPECfp\_rate\_base2006 = 62.9**

**CPU2006 license:** 3

**Test date:** Aug-2007

**Test sponsor:** Hewlett-Packard Company

**Hardware Availability:** Sep-2007

**Tested by:** Hewlett-Packard Company

**Software Availability:** Nov-2007

## Peak Compiler Invocation

C benchmarks (except as noted below):

```
/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/icc
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

433.milc: icc

C++ benchmarks (except as noted below):

icpc

```
450.soplex: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/icpc
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

Fortran benchmarks (except as noted below):

ifort

```
437.leslie3d: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/bin/ifort
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/lib
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux32/include
```

Benchmarks using both Fortran and C:

icc ifort

## Peak Portability Flags

```
410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
444.namd: -DSPEC_CPU_LP64
447.deallI: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
```

## Peak Optimization Flags

C benchmarks:

```
433.milc: -prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias
-auto-ilp32
```

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

SPECfp\_rate2006 = 66.7

ProLiant DL360 G5  
(3.0 GHz, Intel Xeon processor X5365)

SPECfp\_rate\_base2006 = 62.9

CPU2006 license: 3

Test date: Aug-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Sep-2007

Tested by: Hewlett-Packard Company

Software Availability: Nov-2007

## Peak Optimization Flags (Continued)

470.lbm: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2  
-scalar-rep- -prefetch -opt-malloc-options=3

482.sphinx3: -fast -unroll2

### C++ benchmarks:

444.namd: -prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias  
-auto-ilp32

447.dealII: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2  
-ansi-alias -scalar-rep-

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -fast  
-opt-malloc-options=3

453.povray: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4  
-ansi-alias

### Fortran benchmarks:

410.bwaves: -fast -prefetch

416.gamess: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0  
-ansi-alias -scalar-rep-

434.zeusmp: -prof-gen(pass 1) -prof-use(pass 2) -fast

437.leslie3d: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch  
-opt-malloc-options=3

459.GemsFDTD: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0  
-prefetch

465.tonto: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -auto

### Benchmarks using both Fortran and C:

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch  
-auto-ilp32

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2  
-prefetch -auto-ilp32

454.calculix: -fast -unroll-aggressive -auto-ilp32

481.wrf: -fast -auto-ilp32



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Hewlett-Packard Company**

ProLiant DL360 G5  
(3.0 GHz, Intel Xeon processor X5365)

**SPECfp\_rate2006 = 66.7**

**SPECfp\_rate\_base2006 = 62.9**

**CPU2006 license:** 3

**Test sponsor:** Hewlett-Packard Company

**Tested by:** Hewlett-Packard Company

**Test date:** Aug-2007

**Hardware Availability:** Sep-2007

**Software Availability:** Nov-2007

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/HP-Intel-ic10.1-linux-flags.20090714.01.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/HP-Intel-ic10.1-linux-flags.20090714.01.xml>

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.0.  
Report generated on Tue Jul 22 12:38:28 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 18 September 2007.